Rhode Island Department of HEALTH

# PROTECT YOUR DRINKING WATER

*Safe and healthy lives in safe and healthy communities*

## Woodland Convalescent Center

*Pollution Risk Assessment Results*

The **Woodland Convalescent Center** (PWSID 2942518) is a community water system in North Smithfield that serves an estimated 40 residents and 14 employees through 2 service connections. The water system consists of one drilled well. Water is pumped via the submersible pump to a non-pressurized tank in the tank vault. It is then pumped to four pressurized tanks in the convalescent home before being distributed to the system. The last sanitary survey was April 24, 2001. For further information contact Mary Ann Abbruzzi at 70 Woodland Road, North Smithfield, RI 02896.

**The Source Protection Area** is a circle of radius 1,750 feet, or about 220 acres (see Figure 2 on back). It is mostly wooded and wetlands with moderate to high density residential and commercial development. Developed recreational and agricultural land uses are also located in the protection area (see Table 1 on back).

**Sample Summary** (for the previous five years)

- ▲ Bacteria have not been detected.
- ▲ Nitrate levels in groundwater are somewhat higher than background levels, which may indicate contribution from human activity.
- ▲ No violations of the standards for other regulated contaminants have been identified. However, there have been detections below levels considered acceptable by US EPA. This indicates the need for continued monitoring.

**This report** summarizes assessment results for this water system. The assessment identifies both known and potential sources of pollution occurring in the source protection area, and ranks the water source based on the likelihood of future contamination. The goal of this study is to help water suppliers, local officials, residents and consumers to learn more about source water protection. Because water quality is directly related to land use activities, everyone living or working in the source protection area has a role to play in keeping local water supplies safe.

### Source Water

The focus of these assessments is on public drinking water supply "source" areas—the *wellhead protection area* that recharges a well or the *watershed* that drains to a surface water reservoir. Source water is untreated water from streams, lakes, reservoirs, or underground aquifers that is used to supply drinking water.

**Source Water Assessments** were conducted by the R.I. Department of Health in collaboration with the University of Rhode Island Cooperative Extension (URI CE) under the Rhode Island Source Water Assessment Program. This is part of a national initiative, established under the 1996 Amendments to the Federal Safe Drinking Water Act (SDWA), to foster more comprehensive protection of drinking water supplies at the local, state, and national levels.


| Susceptibility To Contamination | | |
|---|---|---|
| √ Low | Moderate | High |

**Note:** A low rating does **NOT** mean that the source is free from contamination risk. Without sufficient protection, **ANY** water supply can become contaminated.

**POLLUTION RISKS:**

- ▲ High-intensity residential land use is located near the well.
- ▲ Transportation corridors and several roads are located near the well, increasing the risk of hazardous material spills and road salt contamination.
- ▲ Several underground storage tanks are located inside the source protection area.

**PROTECTION OPPORTUNITIES:**

- ▲ The majority of the source protection area consists of undeveloped forestland.
- ▲ The town can implement land use controls and programs to protect this source protection area from high-intensity development.
- ▲ The town and supplier can encourage farmers and businesses to use best management practices in handling potential contaminants.
- ▲ Residents can follow the guidelines on the back to reduce the impact of household contaminants.

**Table 1.** High-intensity land uses identified within the source water protection area that have the potential to contaminate drinking water.

| Land Use Category | Associated Contaminants[1] | % of Protection Area |
|---|---|---|
| % Residential | Nutrients, Pathogens, VOCs, SOCs | 16.2% |
| % Commercial, Industrial, Institutional | VOCs, SOCs, Solvents, Inorganics | 20.7% |
| % Intensive Agriculture | Nutrients, Pathogens, VOCs, SOCs | 1.3% |

[1]Potential contaminants include nutrients (nitrates and phosphorus from fertilizers and human and animal waste), pathogens (bacteria, viruses, and other microorganisms that can cause disease); volatile organic compounds (VOCs) found in fuels and solvents; synthetic organic compounds (SOCs), such as pesticides and plastics; and inorganics, including metals and other substances that can harm human health in high concentrations.


**Figure 2.** Areas of high-intensity land use are shown in dark gray.

## What You Can Do To Protect Water Quality

### Public Water Suppliers:

- Implement all recommendations in the latest Sanitary Survey.
- Protect undeveloped land within the wellhead or watershed protection area. Work with municipal boards and government as needed to implement land use protection measures and education programs.
- Post signs alerting public to Wellhead or Watershed Protection Area.
- Inspect water supply and protection area regularly for potential pollution sources.

### Municipal Boards and Government:

- Develop a groundwater protection plan and ordinance and supporting protective zoning regulations, such as limits of paved surface areas within new developments.
- Incorporate groundwater and source water protection goals into the Comprehensive Plan.
- Implement on-site wastewater management or sewer maintenance plans and ordinances.
- Develop programs for land acquisition, conservation easements, or other critical lands protection.
- Adopt a stormwater management plan and ordinance.
- Establish a community education and outreach program that promotes residential pollution prevention and best management practices for the Public Works Department.

### Residents:

- Inspect septic systems annually and pump as needed.
- Replace/repair cesspools and failing septic systems.
- Reduce fertilizer and pesticide use.
- Reduce stormwater runoff by limiting paved surface areas and maintaining good vegetative cover.
- Pick up after your pets.
- Properly use, store, and dispose of hazardous products.
- Properly maintain motor vehicles and fuel storage tanks. Consider replacing underground storage tanks with properly contained above-ground tanks.
- Check all municipal laws that may apply.

### Farmers and Landowners: *Develop conservation plans on agricultural and forest lands that:*

- Reduce soil erosion, sediment, and stormwater runoff.
- Address proper nutrient, manure, pest, and irrigation water management.
- Address proper fuel storage and equipment maintenance.
- Conserve water, improve soil health, and protect surrounding natural resources.
- Check all federal and state laws that apply.

### Commercial and Industrial Businesses:

*Adhere to all laws, regulations, and recommended practices for:*

- Hazardous waste management
- Above- and underground storage tanks
- Wastewater discharge
- Floor drains
- Proper training for all employees

### For More Information

**R.I. Department of Health, Office of Drinking Water Quality,** (401) 222-6867, www.healthri.org/environment/dwq/Home.htm
**URI CE Home*A*Syst Program** (401) 874-5398, www.uri.edu/ce/wq
**URI CE Nonpoint Education for Municipal Officials** (401) 874-2138, www.uri.edu/ce/wq
**Local Municipal Boards and Government**, contact town/city hall
**R.I. DEM Office of Water Resources** (401) 222-4700, www.state.ri.us/DEM/programs/benviron/water/index.htm
**USDA Natural Resources Conservation Service and Conservation District Offices,** (401) 828-1300, www.ri.nrcs.usda.gov

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